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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,854	12/14/2001	Steven L. Scott	499.710US1	6674
21186	7590	11/29/2005	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH			HALIYUR, VENKATESH N	
1600 TCF TOWER			ART UNIT	PAPER NUMBER
121 SOUTH EIGHT STREET				
MINNEAPOLIS, MN 55402			2664	

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/020,854	SCOTT ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Venkatesh Haliyur	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 14 December 2001.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-27 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-27 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date 1 page.

4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims 1 – 27 have been examined.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki [US Pat: 5,649,141] in view of Mazzola et al. [US Pat: 5,740,171].

Regarding claims 1,12,22-24, applicant furnished prior art, Yamazaki, disclosed "Multiprocessor system for locally managing address translation table", a method of address (node) translation [140 of Fig 2] for multiprocessor system [110-M of Fig 2] for connecting plurality of clusters [110-N of Fig 2] that communicates with each other via a network and sending a memory request to the endpoint node, wherein the memory request is sent to the local processing element node if the endpoint node is the local processing element node [100-1 of Fig 2], and is sent over the network interconnect to

the remote processing element node if the endpoint node is the remote processing element node [100-2 of Fig 2]. Yamazaki also disclosed defining a local connection table [130 of Fig 2, Figs 4A, 4B] configured to be accessed using the connection descriptor to produce a system node identifier for the endpoint node [item 130 of Fig 5], generating a communication request including the connection descriptor, in response to the communication request, accessing the local connection table using the connection descriptor [Fig 3] of the communication request to produce the system node identifier for the endpoint node [Fig 2, column 1, lines 50-67, column 2, lines 1-2, lines, 35-67, column 3, lines 1-9]. But, Yamazaki fails to disclose connection descriptor for a virtual connection in his invention.

However, Mazzola et al, in their invention of "Address translation mechanism for a high-performance network switch" disclosed accessing the local connection table (source) using connection descriptor of the forwarding tables to produce the system node (cluster) identifier for the endpoint node (destination) for virtual connections [Figs 4 & 5, column 3, lines 1-34, column 5, lines 36-50, column 10, lines 31-67].

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the teachings of Mozzola et al. to include the method of using connection descriptor for virtual connections in the system of Yamazaki et al. for accessing the local connection table using the connection descriptor for virtual connection to produce the system node identifier for the endpoint node when a communication request is made.

Regarding claim 2,4,13-15, Yamazaki disclosed the user processor issuing access

request to memory and calculation process, such as assigning descriptors, defining a local connection table are performed by local process as directed by the software (operating system) in the local system [column 2, lines 59-65, column 3 lines 1-9].

Regarding claim 3, Yamazaki disclosed that assigning uses the connection descriptor to define a logical connection between a first virtual address space used by a local user process and a second virtual address space, whereby the connection descriptor allows the local user process to access the second virtual address space [column 1, lines 20-62].

Regarding claim 5,6,9,16,17,20, Yamazaki disclosed that the local connection table (forwarding) includes a plurality of entries which are indexed by the connection descriptor, with each entry providing the system node identifier for the endpoint node [column 2, lines 36-67, column 3, lines 1-9], but fails to disclose the associated virtual connection, validation, and a key for qualifying an address translation at the endpoint node.

However, Mazzola et al. disclosed the associated virtual connection, validation method, and a key for qualifying an address translation at the endpoint node [column 8, lines 4-60].

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the teachings of Mozzola et al. to include the method of using virtual connections, validation and a key for address translation in the system of Yamazaki et al. to determine the endpoint node of the virtual connection.

Regarding claim 7, 8,10,11,18,19,21,25-27, Yamazaki disclosed accessing,

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generating, sending are performed by a local user process [column 2, lines 59-65, column 3 lines 1-9], but fails to disclose that the communication request to a communication engine, accessing without intervention of operating system and servicing aging packets.

However, Mazzola et al. disclosed a communication engine (forwarding engine) for making forwarding decisions, DMA (direct memory access), monitoring aging packets and determining if entire contents of the frame (packets) have been sent [Figs 1-5, column 4, column 5, lines 1-35, column 9, lines 50-62].

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the teachings of Mozzola et al. to include the method of using communication engine, aging bits, DMA for accessing, generating, sending communication request without intervention of operating system.

### ***Conclusion***

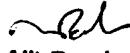
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art in reference here are Yamazaki and Mazzola.

3. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached @ (571)-272-3134. Any inquiry of a general

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nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).



Ajit Patel  
Primary Examiner